AMENDMENTS

Claims

Please cancel claims 1 and 42-51 without prejudice as directed to non-elected inventions.

Please amend claims 2-32 as set forth below:

2. The method of claim 33, wherein said tissue specific is conjugated to said ethylenedicysteine on both acid arms of the ethylenedicysteine.

3. The method of claim 33, wherein said radionuclide is ^{99m}Tc, ^{188}Re, ^{186}Re, ^{183}Sm, ^{166}Ho, ^{90}Y, ^{89}Sr, ^{67}Ga, ^{68}Ga, ^{111}In, ^{183}Gd, ^{59}Fe, ^{225}Ac, ^{212}Bi, ^{211}At, ^{64}Cu or ^{62}Cu.

4. The method of claim 3, wherein said radionuclide is ^{99m}Tc.

5. The method of claim 35, wherein said tissue specific ligand is an anticancer agent, DNA topoisomerase inhibitor, antimetabolite, tumor marker, folate receptor targeting ligand, tumor apoptotic cell targeting ligand, tumor hypoxia targeting ligand, DNA intercalator, receptor marker, peptide, nucleotide, organ specific ligand, antibiotic, antifungal, antibody, glutamate pentapeptide or an agent that mimics glucose.

6. The method of claim 5, wherein said tissue specific ligand is an anticancer agent.

7. The method of claim 6, wherein said anticancer agent may be selected from the group consisting of methotrexate, doxorubicin, tamoxifen, paclitaxel, topotecan, LHRH, mitomycin C, etoposide tomudex, podophyllotoxin, mitoxantrone, camptothecin, colchicine, endostatin, fludarabin, gemcitabine and tomudex.

8. The method of claim 5, wherein said tissue specific ligand is a tumor marker.

9. The method of claim 8, wherein said tumor marker is PSA, ER, PR, CA-125, CA-199, CEA AFP, interferons, BRCA1, HER-2/neu, cytoxan, p53, endostatin or a monoclonal antibody (e.g., antisense).

10. The method of claim 5, wherein the tissue specific ligand is a folate receptor targeting ligand.

11. The method of claim 10, wherein the folate receptor targeting ligand is folate, methotrexate or tomudex.

12. The method of claim 11, wherein the ligand derivative is ^{99m}Tc-EC-folate.

13. The method of claim 11, wherein the ligand derivative is ^{99m}Tc-EC-methotrexate.

14. The method of claim 11, wherein the ligand derivative is ^{99m}Tc-EC-tomudex.

15. The method of claim 5, wherein the tissue specific ligand is a tumor apoptotic cell targeting ligand or a tumor hypoxia targeting ligand.

16. The method of claim 15, wherein the tissue specific ligand is annexin V, colchicine, nitroimidazole, mitomycin or metronidazole.

17. The method of claim 16, wherein the ligand derivative is ^{99m}Tc-EC-annexin V.

18. The method of claim 16, wherein the ligand derivative is ^{99m}Tc-EC-colchicine.

19. The method of claim 16, wherein the ligand derivative is ^{99m}Tc-EC-nitroimidazole.

20. The method of claim 16, wherein the ligand derivative is ^{99m}TC-EC-metronidas.

21. The method of claim 5, wherein the tissue specific ligand is glutamate pentapeptide.

22. The method of claim 0, wherein the ligand derivative is 99mTc-EC-glutamate pentapeptide.

23. The method of claim 5, wherein the tissue specific ligand is an agent that mimics glucose.

24. The method of claim 23, wherein the agent that mimics glucose is neomycin, kanamycin, getnamycin, paromycin, amikacin, tobramycin, netilmicin, ribostamycin, sisomicin, micromicin, lividomycin, dibekacin, isepamicin, astromicin, or an aminoglycoside.

25. The method of claim 24, wherein the ligand derivative is 99mTc-EC-neomycin.

26. The method of claim 24, wherein the ligand derivative is 99mTc-EC-kanamycin.

27. The method of claim 24, wherein the ligand derivative is 99mTc-EC-aminoglycosides.

28. The method of claim 24, wherein the ligand derivative is 99mTc-EC-gentamycin.

29. The method of claim 24, wherein the ligand derivative is 99mTc-EC-tobramycin.

30. The method of claim 2, further comprising a linker conjugating EC to said tissue specific ligand.

31. The method of claim 30, wherein the linker is a water soluble peptide, glutamic acid, aspartic acid, bromo ethylacetate, ethylene diamine or lysine.

32. The method of claim 31, wherein the tissue specific ligand is estradiol, topotecan, paclitaxel, raloxifen, etoposide, doxorubricin, mitomycin C, endostatin, annexin V, LHRH, octreotide, VIP, methotrexate or folic acid.